

PRELIMINARY ANNOUNCEMENT

SYMPOSIUM ON ORDERED SETS

(The role of ordered sets in mathematics and its applications)

August 28 to September 12, 1981 at Banff, Canada**N.A.T.O. Advanced Study Institute****Canadian Mathematical Society****N.S.E.R.C. of Canada****The University of Calgary**

The theory of ordered sets is today a thriving branch of mathematics. It both draws upon and applies to several other branches of mathematics, including algebra, set theory, and combinatorics. The theory itself boasts an impressive body of fundamental and deep results, as well as a variety of challenging problems, some of traditional heritage and some of fairly recent origin.

- The SYMPOSIUM on ORDERED SETS is intended to identify to the general mathematical and scientific communities an area of depth and sophistication by surveying the current state of the theory of ordered sets in mathematics and its applications. Many of the new methods and topics in the theory of ordered sets have real and immediate applications. Moreover, these new developments have in many instances, simplified the communication of ideas and results about ordered sets. The topics can be loosely classified as belonging to algebra, set theory and combinatorics.

Algebra: Structure theory, arithmetic, continuous lattices, Cohen-Macaulay ordered sets, ordered fields, congruence lattices.

Set Theory: Order types of real numbers, cofinality, linear extensions, logic, model theory.

Combinatorics: Order dimension, combinatorial geometries, order and graphs, scheduling theory, algorithmic efficiency.

- The SYMPOSIUM on ORDERED SETS is intended as a high-level teaching activity at which carefully prescribed topics from the theory of ordered sets will be surveyed in a systematic and coherently structured programme. While important recent advances in the theory of ordered sets will play a prominent role in the programme, the presentation of the latest research of the participants will not dominate the programme. In this spirit, apart from problem sessions, all lectures will be by invitation.

- The SYMPOSIUM on ORDERED SETS is intended to promote collaboration among scientists from around the world by free and informal exchange of advanced knowledge in the theory of ordered sets. In addition, it is intended to stimulate the formation of contacts among scientists from different countries.
- The SYMPOSIUM on ORDERED SETS is sponsored jointly by N.A.T.O. (Advanced Study Institute Programme), N.S.E.R.C. of Canada, Canadian Mathematical Society (Summer Research Institute), and the University of Calgary.
- The SYMPOSIUM on ORDERED SETS is directed and organized by I. Rival (Canada). The scientific programme committee consists of R.P. Dilworth (U.S.A.), I. Rival (Canada), and R. Wille (Germany).

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